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54 **APPARATUS FOR ISSUING PASSBOOKS.**

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Description

Technical Field

This invention relates to apparatus for issuing passbooks, of the kind including storage means adapted to store a plurality of passbooks in a closed position, first feeding means adapted to feed passbooks from said storage means into a feed path, second feeding means adapted to feed passbooks along said feed path, and printing means located adjacent said feed path.

By a passbook herein is meant a book having a relatively thick cover and relatively thin pages, suitable for recording the transactions, such as deposits and withdrawals, of a customer of a financial institution such as a bank.

Background Art

U. S. Patent Specification No. 4,280,036 discloses an automatic bank depositing machine wherein the amount of cash deposited by a customer in the machine is automatically recorded at the appropriate location in a passbook which is manually inserted into the machine in an open condition and is automatically fed completely into the machine for printing. The known apparatus includes an automatic page turning mechanism which is effective to turn over a page of the passbook when that page is full and further printing is required, the passbook being fed back to the printing position for further printing on the new page. However, the known apparatus is not concerned with the issuing of passbooks.

Patent Abstracts of Japan, vol. 7, No. 134, 11 June 1983 (P-203) (1279), Abstract of published Application No. 58-50069, discloses apparatus for issuing passbooks, of the kind specified. According to this known apparatus, which is additionally adapted for handling passbooks in use, if the existence of a specific mark on the last page of a passbook in use is detected, indicating that the passbook is full, the passbook is returned to the insertion entrance of the apparatus, and a new passbook is fed out from a passbook storage container. The relevant account number and user's name are printed on the cover of the new passbook, and the new passbook is fed out through a passbook issue slot.

GB-A-2 104 493 discloses an automatic cash withdrawal machine which enables a user to withdraw cash and prints prescribed information in a passbook inserted into the machine in an open condition by the user. The open passbook, inserted into the machine is fed to a printing device which prints the relevant information on the open page of the passbook. Subsequently the passbook is moved to a page turning station, at which a pad is moved upwardly to press the open page of the passbook into engagement with a roller, which is rotated to commence turning the page. The pad is then moved downwards and the

passbook moved such that the partially turned page is fully turned by contact with the roller. Further printing can then take place on a new page of the passbook.

Disclosure of the Invention

It is an object of the present invention to provide apparatus for issuing passbooks.

According to the present invention, there is provided apparatus for issuing passbooks, of the kind specified, characterized in that said storage means includes a plurality of storage bins adapted to store passbooks of different types, in that said passbooks are provided with coded data including information relating to the type of passbook, in that code sensing means are provided, located adjacent said feed path and adapted to read said coded data, in that turning means are provided located adjacent said feed path and adapted to turn the cover and pages of said passbooks, and in that control means are provided, adapted to control said first and second feeding means, said printing means and said turning means to cause information to be printed on said cover and on a page of said passbook, and thereafter cause said passbook to be fed to discharge means or, if said coded data is invalid, to be fed to collection means.

Thus, it will be appreciated that apparatus according to the invention provides the capability for a customer of a bank to open an account and automatically receive a newly issued passbook containing relevant printed information concerning the newly opened account.

In a preferred embodiment of the invention, which will be described in more detail hereinafter, there is disclosed a system for issuing passbooks and other banking documents which includes a plurality of storage bins for respectively storing a number of different types of unused passbooks and other types of legal documents such as bonds or certificates of deposit, a main control section consisting of a memory unit and a microprocessor unit adapted for controlling the issuance of passbooks and the like in response to a command from a central computer or processing unit, a feed control section for controlling the feeding of the passbooks under the control of the main control section, feeding means which are provided in the respective outlet of said plurality of storage bins to feed the passbooks seriatim from the storage bins under the control of said feed control section, a guide chute along which said passbooks are transported, a printing section including a print mechanism for printing data in said passbook, a page-turning section for turning the cover and the succeeding pages of the passbook prior to a printing operation, a magnetic read-write transducer, and an interface section connected to a plurality of bank terminals and said central computer wherein said printing

station, said page-turning section and said magnetic read-write transducer, located adjacent said guide chute, are sequentially operated for processing and issuing the passbook or other type of bank document.

Brief Description of the Drawings

One embodiment of the invention will now be described by way of example with reference to the accompanying drawings, in which :

Figure 1 is a schematic diagram of passbook issuing apparatus according to the present invention ;

Figure 2 shows a top view of an outer surface of a cover of a closed passbook ; and

Figure 3 shows a top view of the passbook in an open condition after the cover has been turned over to expose the inner surface of the cover.

Best Made for Carrying Out the Invention

Referring now to Fig. 1, there is disclosed a schematic diagram of the passbook issuing system of the present invention which includes a plurality of remote terminal devices 20 through which a bank clerk or a customer inputs the required data such as the name of the customer, the kind of document required, the number of the account, etc., needed to issue a passbook or a certificate of deposit or bond. This information is transmitted over line 22 to a branch controller 24 and from there to a central or remote computer or processor 26 over the bus 28. The computer 26 in response to receiving the data from the terminal device 20 is programmed to output a plurality of control signals over bus 28 and through the controller 24 to a main control section 30 over bus 32. The control section 30 also receives control signals from a clerk-operated mode switch 34, a keyboard 36 by which a password may be entered by the clerk or customer and a memory device 38 for storing data associated with the document issuing transaction and a display 40 for displaying data concerning the transaction or lead through instructions.

The main control section 30 in response to the data received will control the operation of an issuance control section 42 which controls the issuance of a document such as a passbook or a bond. The control section 30 also controls a feeding control section 44 which controls the feeding of the documents from a storage area to a document issuance section for processing therein. Associated with the feeding control section 44 is a plurality of first storage bins 46 each storing one of a number of different types of passbooks 48 in a closed position and a plurality of second storage bins 50 each storing a number of different types of bank documents 52 which may have multiple pages. Associated with each of the storage bins 46 and 50 is a vertically oriented rotatably mounted conveyor belt 54 driven by a pair of rollers 56 whose direction of rotation is controlled by a motor (not shown) which in turn is controlled

by the feeding control section 44.

Associated with each of the bins 46 is a pick-up roller 58 whose operation is controlled by the feeding control section 44 and a photodetector 60 which is energized by a light source 62 for detecting the presence of a passbook in the storage bin 46. A drive roller 64 feeds the passbook along the conveyor belt 54 to the entrance portion 66 of a horizontal guide chute 68. A photodetector 70 and a light source 72 mounted adjacent the conveyor belt 54 and the drive roller 64 cooperate to detect the presence of a passbook being fed by the roller 58 into engagement with the drive roller 64 and the conveyor belt 54. Both photodetectors 60 and 70 are connected to the feeding control section 44 which may operate the display 40 to indicate that a storage bin 46 is empty of passbooks. The passbooks 48 are held in the bin by a spring urged pressure member 74. The remaining storage bins 46 are similarly constructed.

In a similar manner, each of the document bins 50 has associated therewith a spring urged pickup drive roller 76 for moving the top document 52 into engagement with a pair of drive rollers 78 which cooperate with the conveyor belt 54 to drive the document 52 along the belt to the entrance portion 66 of the guide chute 68. A pair of photodetectors 80 and 82 mounted adjacent the storage bins 50 are connected to the control section 44 to detect the presence of a document in the bin 50 and in engagement with the drive rollers 78 respectively. Light sources 84 and 86 operate in conjunction with the photodetectors 80 and 82 respectively in a manner that is wellknown in the art.

Located at the entrance portion 66 of the guide chute 68 are a pair of feed rollers 88 which drive either a document 52 or a passbook 48 from the conveyor belt 54 into a gate section 90 controlled by the issuance control section 42 which positions the document or the passbook in the horizontal portion of the guide chute 68. If the document being transported is a passbook 48, the issuance control section 42 will close the gate section 90 after the passbook has been located in the guide chute 68 and enable the feed rollers 92-96 inclusive to move the passbook 48 to a printing station which comprise a printing mechanism 98 where data is printed on the cover of the passbook under the control of the issuance control section 42 in response to control signals transmitted from the main control section 30. Associated with the printing mechanism 98 is a cover and page turning mechanism generally indicated by the numeral 99 comprising a drive roller 100 and a U-shaped drive plate 102 which is moved vertically upwards to bend the closed passbook 48 to a bowed position whereby the cover may be rotated to a partially open position by anticlockwise rotation of the drive roller 100. The plate 102 is then moved vertically downwards and the passbook 48 is fed in a leftward direction with the roller 100 stationary, whereby the stationary roller 100 moves the partially open cover to a completely

open position. An interior page may be turned in a generally similar manner, but with a relatively low degree of pressure being exerted by the drive plate 102. For a more detailed description of the page turning mechanism, reference should be made to an international application (WO/01478) in the name of the present applicant, filed on the same day as the present application and entitled « Automatic Document Page Turning Apparatus ».

Located adjacent the guide chute 68 is a code reading station comprising a transducer 104, a double feed detector 106, a magnetic read write transducer 108 and a plurality of gate sections 110-114 inclusive which are selectively operated by the issuance control section 42 to locate a document 52 or a passbook 48 in a discharge section 116 or a temporary storage bin 118, a double feed document 52 in a collection bin 120, or an invalid passbook 48 in a collection bin 122.

In the operation of the system, a customer or a bank clerk will enter data in one of the terminal devices 20 or the keyboard 36 in accordance with the type of bank document to be issued. In the case of a passbook, data such as the kind of passbook (savings, checking, etc.) desired, the number of the account, the name of the customer, etc. is entered. In the case of a customer desiring to open an account, the terminal device 20 may take the form of an automatic teller machine (ATM) which includes money receiving means, guidance means and keyboard means. The data inputted by the customer in the terminal device 20 which may include the amount of money deposited is sent to the central computer 26 through the branch controller 24 resulting in the opening of the account and the automatic issuance of a passbook.

Further included in the operation of the system where a bank clerk is involved, the clerk will switch the mode switch 34 to the offline mode position to load the storage bins 46 with passbooks 48 and the storage bins 50 with bank documents 52 such as bonds or certificates of deposit if needed. The clerk will also insert into the memory device 38 through the keyboard 36, the data and a clerk identification number together with the number of passbooks 48 and bank documents 52 stored in the storage bins 46 and 50 respectively. As the passbooks 48 and the documents 52 are issued, the number of passbooks and documents remaining in the storage bins are stored in the memory device 38 for use in the inventory control of the items.

The data concerning the issuance of a passbook 48 or a bank document 52 stored in the central computer 26 is transmitted to the main control system 30 and from there to the feeding control section 44 and the issuance control section 42. The data transmitted from the computer 26 to the main control station 30 is also stored in the memory device 38. The feeding control section 44 in response to receiving the data from the main control section 30 will operate the pick-up feed roller 58 to feed a passbook 48 from one of

the storage bins 46 or the feed roller 76 to feed a bank document 52 from one of the storage bins 50. The vertically oriented conveyor belt 54 is operated by the feeding control section 44 in the required direction to feed the passbook 48 or the document 52 through the feed rollers 88 and through the gate section 90 which has been operated by the issuance control section 42 to a position in the horizontal portion of the guide chute 68. After the passbook 48 or document 52 has been located in the guide chute 68, processing of the items will then take place. In the case of a bank document 52, the double feed detector 106 will detect the presence of an overlapped document. If the document 52 is found to comprise an overlapped document, the document is transported along the guide chute 68 by the feed rollers 94, 96, 124 and 126, through the gate section 110 which has been operated by the issuance control section 42 in response to the operation of the detector 106 to deflect the document in a downward direction to be transported by the feed rollers 128 through the gate section 112 operated to divert the document into the collection bin 120.

If the document 52 has been found to be a single document by the detector 106, the document is transported by the feed rollers 92-96 inclusive to the print station in which the printing mechanism 98 prints data such as the name of the customer, the account number, etc. on the document, the data being transmitted from the computer 26 to the printing mechanism 98 through the branch controller 24 and the control sections 30 and 42. After the printing operation has occurred, the document 52 is then transmitted by the feed rollers 124 and 126 through the gate section 110 which has been operated to deflect the document in an upward direction for engagement by the feed rollers 130 which in turn moves the document through the gate section 114 to either the discharge outlet 116 or the temporary storage bin 118.

When a passbook 48 is positioned within the guide chute 68, the passbook is in a closed condition. The passbook 48 (Fig. 2) is then transported to the printing mechanism 98 where the mechanism prints the name of the customer 132 and the account number 134 on the cover 136 of the passbook. This data is retrieved from the computer 26 in the manner previously described. At the completion of the printing operation, the passbook 48 is transported by the feed rollers 92-94, 138 and 140 to a position adjacent the magnetic read/write transducer 108 which writes the identification number or password of the customer and the account number in a magnetic stripe 142 (Fig. 2) located on the cover 136 of the passbook 48.

After the required data has been magnetically recorded on the cover of a passbook 48, the passbook is transported to the page-turning mechanism 99. As previously described, the page-turning mechanism includes a drive roller 100 for turning the cover or the pages of the

passbook and a drive plate 102 which is movable in a vertical direction to bow the passbook whereby the cover or the top page of the passbook is moved into engagement with the drive roller 100 enabling the roller 100 to turn over the cover 136 of the passbook 48 and the subsequent pages of the passbook in the manner described hereinabove and disclosed in more detail in the aforementioned co-pending application. The opening of the passbook cover 136 exposes a bar code label 144 (Fig. 3) which contains data indicating the type of passbook and the page number. Each and every succeeding page of the passbook contains a similar bar code label which is used in verifying the data printed on the page with the data stored in the memory device 38. The open passbook 48 is then moved to the code reading station where the read head 104 will read the bar code label 144 in a manner that is well known in the art. If in comparing the data stored in the label 144 with the data stored in the memory device 38, it is found that for some reason the passbook is invalid, the passbook is transported through the gate sections 110 and 112 for deposit in the collection bin 122 (Fig. 1).

If in checking the data contained in the label 144, the passbook is found to be valid, the open passbook is then transported to the printing mechanism 98 where the mechanism will print the name 146 (Fig. 3) of the customer, the account number 148 and the name of the bank or paying agent 150. After the printing operation has been completed, the passbook is transported back to the page turning mechanism 99 where the drive roller 100 turns over the next page on which deposits are to be recorded. The passbook 48 is then transported to the code reading station where the read head 104 will read the bar code label 144 on the page verifying the open page after which the passbook is transported back to the printing station where the printing mechanism 98 will print the data associated with a deposit transaction such as the date, the amount deposited and the balance. If the transaction requires data to be printed on subsequent pages, the passbook is returned to the page turning mechanism 99 where the next page is exposed for printing. This sequence of operation continues until the transaction is complete. The passbook 48 is then transported to the discharge outlet 116 for retrieval by the customer or to the temporary storage bin 118. The main control section 30 will then generate data relating to the number of passbooks 48 and documents 52 remaining in the storage bins for use in establishing inventory data.

It will be seen that the system provides for the automatic issuance of a passbook or a bank document with a passbook being stored in a closed position and without requiring the passbook to be opened manually. In addition, there is provided a feed system for issuing any number of different types of passbooks or bank documents. The operation of the system allows a customer to automatically open his own account without the

need of a bank clerk, the customer receiving the passbook or the bank document which has been completely documented in the prescribed manner.

Claims

1. Apparatus for issuing passbooks (48), including storage means (46) adapted to store a plurality of passbooks (48) in a closed position, first feeding means (54, 58, 64) adapted to feed passbooks (48) from said storage means (46) into a feed path (68), second feeding means (92-96, 124, 126, 133, 140) adapted to feed passbooks (48) along said feed path (68), and printing means (98) located adjacent said feed path (68), characterized in that said storage means includes a plurality of storage bins (46) adapted to store passbooks (48) of different types, in that said passbooks (48) are provided with coded data (44) including information relating to the type of passbook (48), in that code sensing means (104) are provided, located adjacent said feed path (68) and adapted to read said coded data (144), in that turning means (99) are provided located adjacent said feed path (68) and adapted to turn the cover and pages of said passbooks (48), and in that control means (30, 42, 44) are provided, adapted to control said first and second feeding means, said printing means (98) and said turning means (99) to cause information to be printed on said cover and on a page of said passbook (48), and thereafter cause said passbook (48) to be fed to discharge means (116, 118) or, if said coded data (144) is invalid, to be fed to collection means (122).

2. Apparatus according to claim 1, characterized in that the exterior surface of said cover is provided with a magnetic recording medium (142), and by magnetic recording means (108) located adjacent said feed path (68) whereby data pertaining to the customer to whom the passbook is issued may be recorded on said magnetic recording medium (142).

3. Apparatus according to claim 2, characterized in that the inner surface of the cover and each page of said passbook (48) includes said coded data (144) relating to the type of said passbook and further coded data identifying the page number.

4. Apparatus according to claim 3, characterized in that said first feeding means includes a roller (58) adapted to feed said passbook (48) in a closed condition to a conveyor belt (54) adapted to feed the passbook (48) to said feed path (68).

5. Apparatus according to claim 1, characterized by input means (20, 36) for receiving input information relating to the issuance of said passbook (48), and for supplying said input information to said control means (30, 42, 44).

6. Apparatus according to claim 1, characterized by further storage means (50) adapted to store a plurality of documents (52), third feeding means (76, 78) adapted to feed said documents

(52) into said feed path (68), detection means (106) located adjacent said feed path (68) and adapted to provide a detect signal in response to the detection of the presence of overlapped documents (52), and collection means (120), said control means (30, 42, 44) being effective in response to said detection signal, to operate said second feeding means to feed the overlapped documents (52) to said collection means (120).

7. Apparatus according to claim 1, characterized in that said feed path includes a guide chute (68) having feeding rollers cooperating therewith.

8. Apparatus according to claim 1, characterized in that said turning means (99) includes a drive place (102) adapted to move said passbook (48) to a bowed configuration, and rotary means (100) adapted to rotate the cover or a page of said passbook to a partially turned configuration, said passbook being moved such that said rotary means (100), in a stationary condition, is adapted to move said cover or page to a fully turned configuration.

Patentansprüche

1. Gerät zur Ausgabe von Paßbüchern (48) mit einer Speichervorrichtung (46), die geeignet ist, eine Vielzahl von Paßbüchern (48) in einer geschlossenen Position zu speichern, ersten Fördervorrichtungen (54, 58, 64), die geeignet sind, Paßbücher (48) von der Speichervorrichtung (46) in einen Förderweg (68) zu fördern, zweiten Fördervorrichtungen (92-96, 124, 126, 133, 140), die geeignet sind, Paßbücher (48) längs des Förderweges (68) zu fördern, und Druckvorrichtungen (98), die benachbart zu dem Förderweg (68) angeordnet sind, dadurch gekennzeichnet, daß die Speichervorrichtung eine Vielzahl von Speicherbehältern (46) aufweist, die geeignet sind, Paßbücher (48) unterschiedlicher Arten zu speichern, daß die Paßbücher (48) mit kodierten Daten (144) einschließlich Informationen bezüglich der Art des Paßbuches (48) versehen sind, daß eine Kodierungsabtastrvorrichtung (104) vorgesehen ist, die benachbart zum Förderweg (68) angeordnet und geeignet ist, die kodierten Daten (144) abzutasten daß eine Wendevorrichtung (99) vorgesehen ist, die benachbart zum Förderweg (68) angeordnet und geeignet ist, den Deckel und Seiten der Paßbücher (48) zu wenden, und daß Steuervorrichtungen (30, 42, 44) vorgesehen sind, die geeignet sind, die ersten und zweiten Fördervorrichtungen, die Druckvorrichtung (98) und die Wendevorrichtung (99) zu steuern, um zu bewirken, daß Informationen auf den Deckel und auf eine Seite des Paßbuches (48) gedruckt werden, und danach zu bewirken, daß das Paßbuch (48) zu Ausgabevorrichtungen (116, 118) gefördert wird oder, wenn die kodierten Daten (144) ungültig sind, zu einer Sammelvorrichtung (122) gefördert wird.

2. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß die Außenfläche des Deckels mit

einem magnetischen Aufzeichnungsmedium (142) versehen ist, und durch eine magnetische Aufzeichnungs Vorrichtung (108), die benachbart zum Förderweg (68) angeordnet ist, wodurch den Kunden, dem das Paßbuch ausgegeben wird, betreffende Daten auf dem magnetischen Aufzeichnungsmedium (142) aufgezeichnet werden können.

3. Gerät nach Anspruch 2, dadurch gekennzeichnet, daß die Innenfläche des Deckels und jede Seite des Paßbuches (48) kodierte Daten (144) aufweisen, die sich auf die des Art Paßbuches beziehen, und weitere kodierte Daten, die die Seitennummer identifizieren.

4. Gerät nach Anspruch 3, dadurch gekennzeichnet, daß die ersten Fördervorrichtungen eine Rolle (58) aufweisen, die geeignet ist das Paßbuch (48) in einem geschlossenen Zustand zu einem Förderband (54) zu fördern, das geeignet ist, das Paßbuch (48) zu dem Förderweg (68) zu fördern.

5. Gerät nach Anspruch 1, gekennzeichnet durch Eingangsvorrichtungen (20, 36) zum Empfangen von Eingangs-Informationen bezüglich der Ausgabe des Paßbuches (48) und zum Abgeben der Eingangsinformation an die Steuervorrichtungen (30, 42, 44).

6. Gerät nach Anspruch 1, gekennzeichnet durch eine weitere Speichervorrichtung (50), die geeignet ist, eine Vielzahl von Dokumenten (52) zu speichern, dritte Fördervorrichtungen (76, 78), die geeignet sind, die Dokumente (52) in den Förderweg (68) zu fördern, eine Detektorvorrichtung (106), die benachbart zum Förderweg (68) angeordnet und geeignet ist, ein Detektorsignal unter Ansprechen auf die Feststellung des Vorhandenseins überlappter Dokumente (52) abzugeben, und eine Sammelvorrichtung (120), wobei die Steuervorrichtungen (30, 42, 44) unter Ansprechen auf das Detektorsignal wirksam sind, um die zweiten Fördervorrichtungen zur Förderung der überlappten Dokumente (52) zu der Sammelvorrichtung (120) zu betätigen.

7. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß der Förderweg eine Führungsschute (68) aufweist mit Förderrollen, die damit zusammenarbeiten.

8. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß die Wendevorrichtung (99) eine Antriebsplatte (102) aufweist, die das Paßbuch (48) in eine gebogene Form bewegt, und eine Drehvorrichtung (100), die geeignet ist, den Deckel oder eine Seite des Paßbuches in eine teilweise gewendete Form zu drehen, wobei das Paßbuch derart bewegt wird, daß die Drehvorrichtung (100) in stationärem Zustand geeignet ist, den Deckel oder die Seite in eine vollständig gewendete Konfiguration zu bringen.

R vendications

1. Appareil pour délivrer des livrets (48), comprenant des moyens d'emmagasinage (46) conçus pour emmagasiner plusieurs livrets (48)

dans une position fermée, des premiers moyens d'avance (54, 58, 64) conçus pour faire avancer des livrets (48) desdits moyens d'emmagasinement (46) jusque dans un trajet d'avance (68), des seconds moyens d'avance (92-96, 124, 126, 133, 140) conçus pour faire avancer les livrets (48) le long dudit trajet d'avance (68), et des moyens d'impression (98) adjacents audit trajet d'avance (68), caractérisé en ce que lesdits moyens d'emmagasinement comprennent plusieurs bacs d'emmagasinement (46) conçus pour emmagasiner des livrets (48) de différents types, en ce que lesdits livrets (48) reçoivent des données codées (144) comprenant une information concernant le type de livret (48), en ce que des moyens (104) de détection de code sont prévus, placés à proximité immédiate dudit trajet d'avance (68) et conçus pour lire lesdites données codées (144), en ce que des moyens (99) de retournement sont prévus à proximité immédiate dudit trajet d'avance (68) et sont conçus pour tourner la couverture et des pages desdits livrets (48), et en ce que des moyens de commande (30, 42, 44) sont prévus et conçus pour commander lesdits premiers et seconds moyens d'avance, lesdits moyens d'impression (98) et lesdits moyens (99) de retournement afin de provoquer l'impression d'une information sur ladite couverture et sur une page dudit livret (48), puis de faire avancer ledit livret (48) vers des moyens de déchargement (116, 118) ou, si lesdites données codées (144) ne sont pas valides, de le faire avancer vers des moyens collecteurs (122).

2. Appareil selon la revendication 1, caractérisé en ce que la surface extérieure de ladite couverture comporte un support d'enregistrement magnétique (142) et par des moyens d'enregistrement magnétiques (108) placés à proximité immédiate dudit trajet d'avance (68) afin que des données concernant le client auquel le livret est délivré puissent être enregistrées sur ledit support magnétique d'enregistrement (142).

3. Appareil selon la revendication 2, caractérisé en ce que la surface intérieure du couvercle et chaque page dudit livret (48) comprennent lesdites données codées (144) concernant le type dudit livret et d'autres données codées identifiant

le numéro de page.

4. Appareil selon la revendication 3, caractérisé en ce que lesdits moyens d'avance comprennent un rouleau (58) conçu pour faire avancer ledit livret (48) dans un état fermé vers une bande transporteuse (54) conçue pour faire avancer le livret (48) vers ledit trajet d'avance (68).

5. Appareil selon la revendication 1, caractérisé par des moyens d'entrée (20, 36) destinés à recevoir une information d'entrée concernant la délivrance dudit livret (48) et à transmettre ladite information d'entrée auxdits moyens de commande (30, 42 et 44).

6. Appareil selon la revendication 1, caractérisé par d'autres moyens d'emmagasinement (50) conçus pour emmagasiner plusieurs documents (52), des troisièmes moyens d'avance (76, 78) conçus pour amener lesdits documents (52) sur ledit trajet d'avance (68), des moyens de détection (106) placés à proximité immédiate dudit trajet d'avance (68) et conçus pour produire un signal de détection en réponse à la détection de la présence de documents se chevauchant (52), et des moyens collecteurs (120), lesdits moyens de commande (30, 42, 44) ayant pour effet, en réponse audit signal de détection, de mettre en action lesdits deuxièmes moyens d'avance pour faire avancer les documents se chevauchant (52) vers lesdits moyens collecteurs (120).

7. Appareil selon la revendication 1, caractérisé en ce que ledit trajet d'avance comprend une goulotte (68) de guidage comportant des rouleaux d'avance qui coopèrent avec elle.

8. Appareil selon la revendication 1, caractérisé en ce que lesdits moyens de retournement (99) comprennent une plaque d'entraînement (102) conçue pour amener ledit livret (48) dans une configuration bombée, et des moyens de rotation (100) conçus pour faire tourner la couverture ou une page dudit livret vers une configuration partiellement tournée, ledit livret étant déplacé de manière que lesdits moyens de rotation (100), dans un état stationnaire, soient conçus pour amener ladite couverture ou ladite page dans une configuration totalement tournée.

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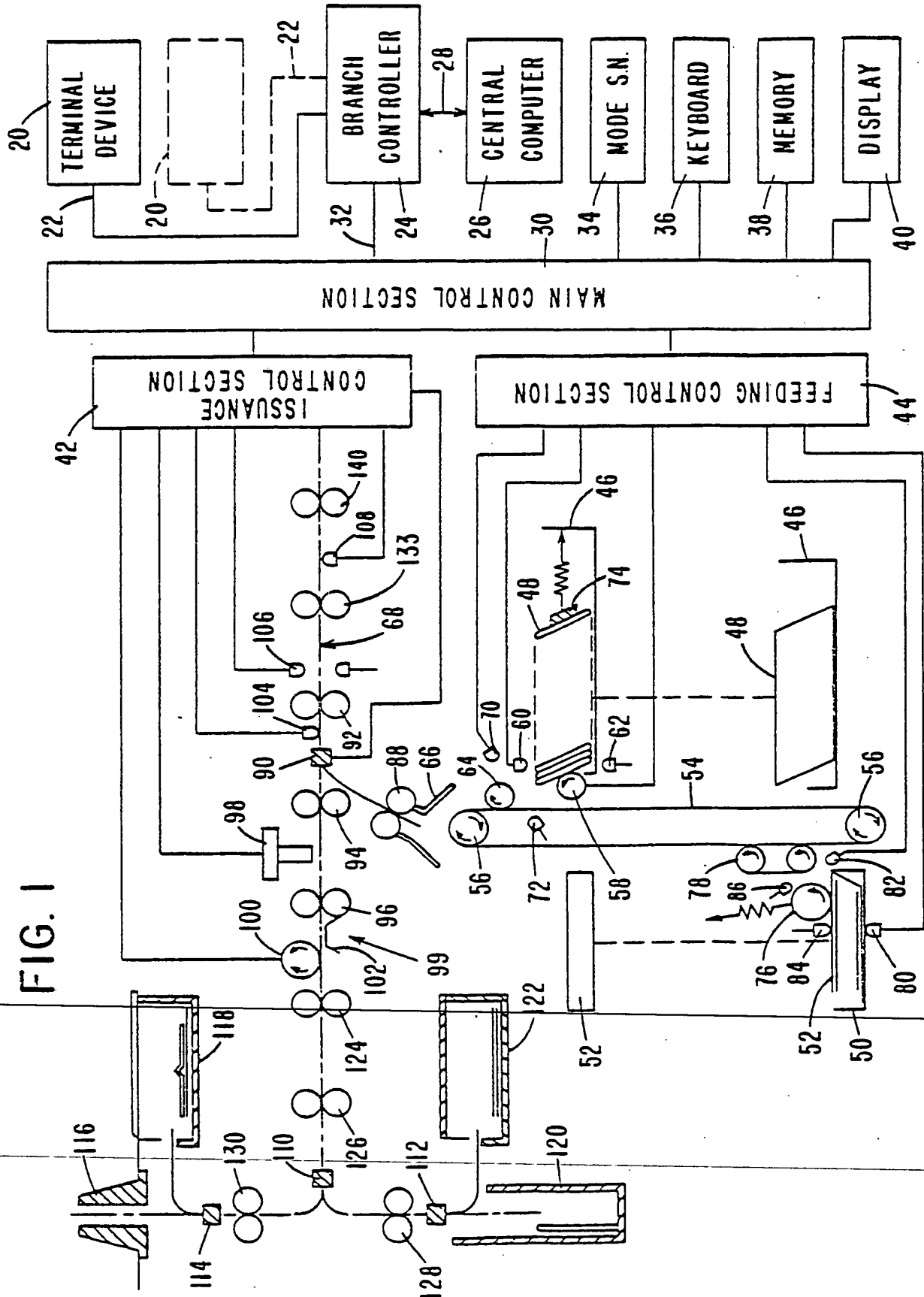


FIG. 1

FIG. 2

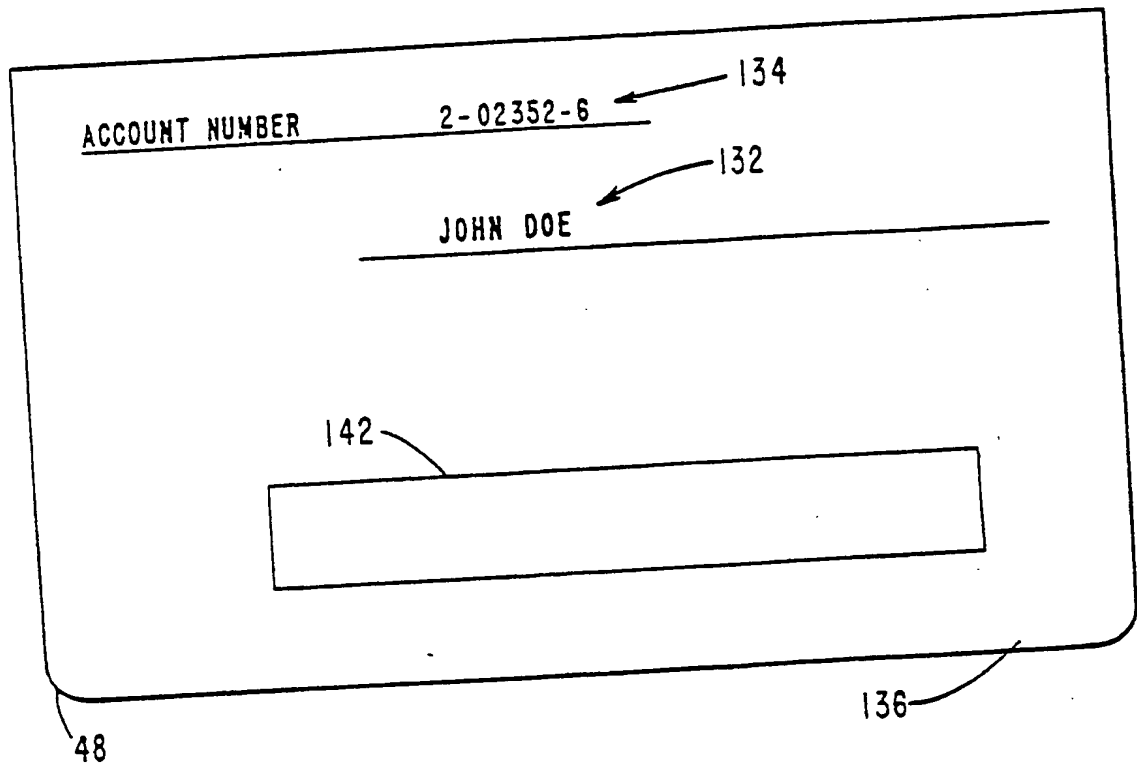


FIG. 3

The diagram shows a rectangular card with rounded corners. At the top right, there are two empty rectangular boxes. Below these, on the left, is the text "JOHN DOE" with a horizontal line underneath it, and an arrow labeled "146" pointing to it. To the right of this is the text "ACCOUNT NUMBER" with a horizontal line underneath it, and an arrow labeled "148" pointing to it. Further right, on the same line, is the text "2-02352-6". Below the "ACCOUNT NUMBER" line, on the left, is a barcode with vertical lines of varying heights, and an arrow labeled "144" pointing to it. To the right of the barcode is the text "AGENT" with a horizontal line underneath it, and an arrow labeled "150" pointing to it. A dashed horizontal line runs across the middle of the card. Below this line, in the lower-left quadrant, is the number "48" with a horizontal line underneath it.

JOHN DOE

ACCOUNT NUMBER 2-02352-6

AGENT

48